PCT/GB2004/005030

A CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K31/55 A61P29/00 A61P25/28 A61P37/00 A61P19/10 C07D223/10 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 A61K Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, BIOSIS, EMBASE, CHEM ABS Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Category ° DAVIDSON BRADLEY S ET AL: "Isolation and X 1-6,8, synthesis of caprolactins A and B, new 19-22 caprolactams from a marine bacterium" TETRAHEDRON, vol. 49, no. 30, 1993, pages 6569-6574, XP002320426 ISSN: 0040-4020 abstract page 6569, paragraph 1 page 6571, last paragraph Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of mailing of the international search report

22 06 2005 9 March 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

Authorized officer

Langer, 0

2

		PC1/GB2004/003030
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SEIFFERT D ET AL: "Presenilin-1 and -2 are molecular targets for gamma-secretase inhibitors." THE JOURNAL OF BIOLOGICAL CHEMISTRY. 3 NOV 2000, vol. 275, no. 44, 3 November 2000 (2000-11-03), pages 34086-34091, XP002320427 ISSN: 0021-9258 scheme 1 on page 34087	5,6,8, 10,11, 21,22
X	WO 98/07694 A (NOVARTIS AG; GERSPACHER, MARC; VON SPRECHER, ANDREAS; MAH, ROBERT; ROG) 26 February 1998 (1998-02-26) page 1 - page 3, paragraph 3 page 3, paragraph 5 - page 5, paragraph 3 claims 1-14	1
X	EP 1 008 346 A (SUNTORY LIMITED; DAIICHI SUNTORY PHARMA CO., LTD) 14 June 2000 (2000-06-14) paragraph [0022] paragraph [0024] - paragraph [0028] page 58 paragraph [0200]	1
X	US 5 852 007 A (CHATTERJEE ET AL) 22 December 1998 (1998-12-22) column 64; example 108	1
X	US 5 821 231 A (ARRHENIUS ET AL) 13 October 1998 (1998-10-13) table 1 claims 20-25	1
X	WO 01/68655 A (ARIAD PHARMACEUTICALS, INC; DEPREZ, PIERRE; LESUISSE, DOMINIQUE; BENAR) 20 September 2001 (2001-09-20) page 11, line 5 - line 19 claims 13,24 claims 18-20	1
X	EP 0 351 856 A (TAKEDA CHEMICAL INDUSTRIES, LTD) 24 January 1990 (1990-01-24) Chart II on page 7	5,8,10, 11,21,22
A	WO 98/17680 A (ZENECA LIMITED; LUKE, RICHARD, WILLIAM, ARTHUR; COTTON, RONALD) 30 April 1998 (1998-04-30) claims 1,8,11-13	1-24,26
A	US 6 344 450 B1 (BISACCHI GREGORY S ET AL) 5 February 2002 (2002-02-05) Chart II on page 7 the whole document	1-24,26

Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)							
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:							
1. X Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:							
Although claim 20 and claims 21-23, as far as relating to a method of treatment, are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.							
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:							
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).							
Box III Observations where unity of Invention is lacking (Continuation of item 3 of first sheet)							
This International Searching Authority found multiple inventions in this international application, as follows:							
see additional sheet							
1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.							
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.							
As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:							
A. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-6, 10, 11, 16, 18-20 (all partially), 7-9, 12-15, 17, 21-24, 26							
Remark on Protest . The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.							

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 7-9, 12-15, 17, 21-24, 26 and partially 1-6, 10, 11, 16, 18-20

Compounds, pharmaceutical compositions and uses according to the above claims with the exception of those cases where (a) R1 and R2 are "peptido radicals"; or (b) the R1 radical has an alpha-carbon which is substituted with one or two of the same or different groups selected from alkoxy, haloalkoxy and alkylamino; or (c) R1-C(=0) is one of the groups 11'-azido-undecanoyl; (2'S, 3'R)-3'-hydroxy-2'-methyldecanoyl; (2'R, 3'S)-3'-hydroxy-2'-methyldecanoyl, (3'R)-3'-hydroxy-2',2'-dimethyldecanoyl, (3'S)-3'-hydroxy-2',2'-dimethyldecanoyl, and 2',2'-dimethyl-3'-hydroxypropionyl.

2. claims: 10, 11, 16 and 18 (all partially)

Compounds, pharmaceutical compositions and uses according to the above claims wherein R1 and R2 are not "peptido radicals" and where (a) the R1 radical has an alpha-carbon which is substituted with one or two of the same or different groups selected from alkoxy, haloalkoxy and alkylamino; and/or (b) R1-C(=0) is one of the groups 11'-azido-undecanoyl; (2'S, 3'R)-3'-hydroxy-2'-methyldecanoyl; (2'R, 3'S)-3'-hydroxy-2'-methyldecanoyl, (3'R)-3'-hydroxy-2',2'-dimethyldecanoyl, (3'S)-3'-hydroxy-2',2'-dimethyldecanoyl, and 2',2'-dimethyl-3'-hydroxypropionyl.

3. claims: 1-6, 19, 20 (all partially)

Compounds, pharmaceutical compositions and uses according to the above claims wherein R1 and R2 are "peptido radicals", as far as not comprised within one of the former inventions.

4. claim: 25

Synthetic intermediates of claim 25.

INTERNATIONAL SEARCH REPORT Information on patent family members

				5 . 11
Patent document cited in search report	Publication date		Patent family member(s)	Publication date
WO 9807694 A	26-02-1998	AT	224875 T	15-10-2002
		ΑU	721850 B2	13-07-2000
		AU	4299397 A	06-03-1998
		BR	9711350 A 2264065 A1	17-08-1999 26-02-1998
		CA CN	1233238 A ,C	27-10-1998
		CZ	9900581 A3	16-06-1999
{		DE	69715886 D1	31-10-2002
		DE	69715886 T2	15-05-2003
		DK	923550 T3	06-01-2003
		MO	9807694 A1	26-02-1998
		EP	0923550 A1	23-06-1999
		ES	2184083 T3	01-04-2003
•		HK HU	1021372 A1 0001165 A2	20-06-2003 28-11-2000
		ID	18059 A	26-11-2000 26-02 -1 998
		IL	128631 A	12-09-2002
		JP	2001503387 T	13-03-2001
}		NO	990786 A	25-03-1999
		NZ	334736 A	29-09-2000
		PL	331740 A1	02-08-1999
		PT	923550 T	31-01-2003
		RU	2185375 C2	20-07-2002 28-02-2003
		SI SK	923550 T1 22199 A3	28-02-2003 14-02-2000
		TR	9900363 T2	21-04-1999
		TW	438777 B	07-06-2001
	•	บร	6319917 B1	20-11-2001
		ZA	9707493 A	03-08-1998
EP 1008346 A	14-06-2000	AU	2854399 A	18-10-1999
		AU	2003244564 A1	02-10-2003
}		CA	2290630 A1	30-09-1999
		EP HU	1008346 A1 0003274 A2	14-06-2000 28-05-2001
		CN	1262618 A .C	09-08-2000
		WO	9948491 A1	30-09-1999
		US	2004030129 A1	12-02-2004
UC 5050007 A	22 12 1000			
US 5852007 A	22-12-1998	UA UA	714324 B2 1025397 A	06-01-2000 03-07-1997
		CA	2238175 A1	19-06-1997
		EP	0910564 A1	28-04-1999
		JP	2002515860 T	28-05-2002
		MO	9721690 A1	19-06-1997
US 5821231 A	13-10-1998	CA	2177840 A1	15-06-1995
) OO OOCIEST V	14 14 1330	CN	1142832 A	12-02-1997
		JP	9509146 T	16-09-1997
		NZ	277206 A	24-11-1997
		US	5770573 A	23-06-1998
		US	5936065 A	10-08-1999
		US	6117840 A	12-09-2000
		AU AU	693143 B2 1215695 A	25-06-1998 27-06-1995
		EP	0737204 A1	27-06-1995 16-10-1996
		WO	9515973 A1	15-06-1995
		US	5688913 A	18-11-1997
Form PCT/ISA/210 (patent family annex) (January 2004	1)			

Information on patent family members

	·····				<u> </u>
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5821231	Α		US	6103870 A	15-08-2000
WO 0168655	Α	20-09-2001	AU	4360101 A	24-09-2001
			WO	0168655 A2	20-09-2001
EP 0351856	Α	24-01-1990	AT	184610 T	15-10-1999
			AU	610739 B2	23-05-1991
			AU	3886289 A	25-01-1990
			CA	1336431 C	25-07-1995
			DE	68929074 D1	21-10-1999
			DE	68929074 T2	05-01-2000
			DK	362889 A	23-01-1990
			EP	0351856 A2	24-01-1990
			IL	91063 A	29-12-1994
			JP	3047188 A 3054738 B2	28-02-1991
			JP KR	9711396 B1	19-06-2000
	•		NZ	230042 A	10-07-1997 26-10-1990
			US	4956360 A	11-09-1990
			US	5118806 A	02-06-1992
			US	5300639 A	05-04-1994
			ZA	8905582 A	27-03-1991
WO 9817680	Α	30-04-1998	AT	256145 T	15-12-2003
		•	ΑU	4633097 A	15-05-1998
			DE	69726743 D1	22-01-2004
			DE	69726743 T2	14-10-2004
			EP	0932618 A1	04-08-1999
			MO	9817680 A1	30-04-1998
			JP	2001508036 T	19-06-2001
			TW	492868 B	01-07-2002
			US	6207644 B1	27-03-2001
			ZA	9709338 A	20-04-1998
US 6344450	B1	05-02-2002	AU	8064201 A	18-02-2002
			CA	2418995 A1	14-02-2002
			EP	1309609 A2	14-05-2003
			HU	0303662 A2	01-03-2004
			JP	2004521071 T	15-07-2004
			WO	0212196 A2	14-02-2002
			AU	756174 B2	09-01-2003
			AU	2630000 A	29-08-2000
			CA EP	2361919 A1 1175405 A1	17-08-2000
			JP	2002536437 T	30-01-2002
			WO	0047563 A1	29-10-2002 17-08-2000
			AALI		. ,